

Biographies of Phasmatologists – 3. Hermann Burmeister.

P.E. Bragg, 8 The Lane, Awsworth, Nottinghamshire, NG16 2QP, U.K.

Abstract

Karl Hermann Konrad Burmeister was a German zoologist and entomologist. His life and phasmid work are outlined. Although he published over 75 entomological papers, only *Handbuch der Entomologie* (1838) included any work on phasmids. Burmeister's phasmid work was limited but important in historical terms. He described one new genus, renamed a second, and described 32 new species: a significant number at that time.

Key words

Phasmida, Phasmatologist, Hermann Burmeister, Biography.

Hermann Burmeister (1807-1892)

Karl Hermann Konrad Burmeister, usually known as Hermann Burmeister, was a German zoologist and entomologist. He was the son of a Customs official and was born in Stralsund, Germany, on 15th January 1807.

He studied at the University of Greifswald in 1826 and the University of Halle from 1827-1829 studying Science and Medicine. He developed an acquaintance with Alexander von Humboldt (brother of Wilhelm von Humboldt, founder of Berlin University), and in Berlin he qualified to teach at university level. In 1837, Burmeister was appointed "Professor Extraordinary" at the University of Halle and progressed to Professor of Zoology in 1842. Burmeister remained in Halle from 1837 until 1861. In 1848 he was chosen as a member of the Berlin parliament, but resigned due to ill health.

Through the support of Alexander von Humboldt, Burmeister travelled to Brazil where he studied natural history in the states of Minas Gerais and Rio de Janeiro from September 1850 to March 1852; the journey was, at least in part, in the hope of a warmer climate improving his health.

In 1853 the introduction to the translation of one of his papers said "he now ranks as one of the most eminent and popular teachers in Germany" (New York Evening Post, 1853). In late 1856, Burmeister visited Argentina and Uruguay returning to Germany with zoological collections. In 1861 he went to live in Argentina, but it was a time of political unrest, and he found his appointment to the museum in Buenos Aires had been revoked by the new government minister. The political unrest in the country was resolved, and in February 1862 he became the Director of the National Museum of Natural History in Buenos Aires where he worked for thirty years. His death on 2nd May 1892 resulted from a failure to recover from injuries sustained when he fell down a staircase.





Figure 3.
Marmessoidea quadriguttata – Male.



Figure 4.
Necroschia prasina – Female.

Burmeister was a naturalist with a wide range of interests including entomology, palaeontology, ornithology, geology, and meteorology. He was an opponent of Darwin & Wallace's theory of evolution. He seems to have been a difficult person both to work with, and live with; he was described as "a very distinguished man of knowledge, but as a man he has his weaknesses -lack of amiability and tact, and too much appreciation of himself. Moreover, he is unhappily married, which adds a dry and brusque aspect to his character" (Gülich *in* Auza, 1996: 138).

His appointment to Buenos Aires museum was viewed as a sign of respectability for Science in Argentina, but over time there developed a feeling amongst some that he was too self-centred; he certainly caused difficulties for many other scientists. He established the museum's journal, *Anales del Museo Público*, but prevented anyone else from publishing in it; the single exception was one article by his son, Carlos, who worked for the museum as a travelling naturalist. There were also disagreements about who had the intellectual rights to results obtained by naturalists at the new Córdoba Academy of Exact Sciences; Burmeister had been appointed as scientific director and insisted everything was published under his name: several professors resigned. Much of his work in Argentina was on palaeontology, and he also described many new species of a variety of animals.

In addition to his many publications on palaeontology, Burmeister published over 75 entomological papers; his entomological research dealt primarily with Coleoptera. Burmeister provided a review of the classification and taxonomy of insects in his five volume *Handbuch der Entomologie* (1832-1847) which was said to “embrace the results of fifteen years of devoted study to the subject” (New York Evening Post, 1853); that was his only publication to deal with phasmids.

586 Zweite Ordnung. Käuferfe (Gymnognatha).

cc. Ohne eigentlichen Höcker und ohne Stacheln auf den Flügeldecken. —

8. Ph. prasinum*: viride, unicolor; alarum area postica incarnata; mesonoto granulato, linea media nec non utrinque laterali elevata. Long. 2" 4".

Von Java und Borneo, durch Herrn de Haan nach Berlin und Halle gesendet.

B. Ohne Nebenaugen. —

Die Arten dieser Sektion haben einen glatten kugeligen Kopf, dessen Scheitel gewölbt und höher ist als der Prothorax; einen sehr dünnen, zierlichen allermeist etwas kdnigen Mesothorax, und zierliche schlanke Beine. Sie bewohnen sämmtlich, so viele mir bekannt wurden, Ostindien, Java, Borneo und Sumatra.

a. Flügeldecken kurz, auf der Mitte ziemlich merklich erhaben.

9. Ph. 4guttatum*: viride, elytris guttis 4 sulphureis; alarum area postica purpurea. Long. ♂. 1" 10", ♀. 3".

Von Borneo.

Figure 5. The upper half of page 586 of *Handbuch der Entomologie*.

Work on phasmids

Burmeister did not do much work on phasmids. His importance as a phasmatologist is largely due to his work having been done in the very early days of Linnean taxonomy, when very common species were still undescribed. His phasmids are described in part one of volume two of *Handbuch der Entomologie* (Burmeister, 1838); part two of volume two was published in 1839. Although he only describes one new genus and 32 new species, some of the species are well-known, and quite common species, e.g. *Phobaeticus acanthopus* (Burmeister). Figure 3 shows the top half of page 586, giving Burmeister's descriptions of *Phasma prasinum* and *Phasma 4guttatum*, now known as *Necroscia prasina* (Burmeister), and *Marmessoidea quadriguttata* (Burmeister). I have included photographs of these two species (figs 3 and 4).

He described *Bacunculus*, on page 566, as a new sub-genus of *Bacteria*; subsequently it has been treated as a genus. On page 576, Burmeister renamed *Aplopus* Gray, 1835 as

Haplopus because he (incorrectly) considered Gray's name to be wrongly formed. Zompro (2005) recently clarified the confusion surrounding *Aplopus* and *Haplopus*.

Burmeister's 32 new species names (with page numbers)

<i>2guttatum</i> (<i>Phasma</i>)586.	<i>gracilis</i> (<i>Bacillus</i>)561.
<i>4guttatum</i> (<i>Phasma</i>)586.	<i>hastata</i> (<i>Bacteria</i>)567.
<i>acanthomera</i> (<i>Cyphocrania</i>)579.	<i>lichenale</i> (<i>Phasma</i>)584.
<i>acanthopus</i> (<i>Bacteria</i>)565.	<i>longicornis</i> (<i>Cladoxerus</i>)572.
<i>aurita</i> (<i>Bacteria</i>)565.	<i>muricata</i> (<i>Bacteria</i>)564.
<i>auritus</i> (<i>Acanthoderus</i>)569.	<i>ornatum</i> (<i>Phasma</i>)585.
<i>bis-2guttatum</i> (<i>Phasma</i>)586.	<i>prasinum</i> (<i>Phasma</i>)586.
<i>brevipenne</i> (<i>Phasma</i>)584.	<i>scabrosus</i> (<i>Acanthoderus</i>)569.
<i>brevis</i> (<i>Bacillus</i>)562.	<i>spatulata</i> (<i>Bacteria</i>)566.
<i>calcarata</i> (<i>Bacteria</i>)566.	<i>spiniceps</i> (<i>Prisopus</i>)588.
<i>ceratophyllus</i> (<i>Haplopus</i>)577.	<i>spinicolle</i> (<i>Phasma</i>)585.
<i>cornutus</i> (<i>Acanthoderus</i>)569.	<i>spinicollis</i> (<i>Prisopus</i>)588.
<i>eucnemis</i> (<i>Haplopus</i>)577.	<i>spinosa</i> (<i>Bacteria</i>)567.
<i>ferula</i> (<i>Bacteria</i>)564.	<i>striata</i> (<i>Bacteria</i>)567.
<i>gibbosa</i> (<i>Diapherodes</i>)575.	<i>tridens</i> (<i>Bacteria</i>)567.
<i>gracilis</i> (<i>Bacteria</i>)567.	<i>venosum</i> (<i>Phasma</i>)585.

Although many of Burmeister's collections are in the museum at Martin Luther University, Halle (MLUH), his phasmid work was done in Berlin and consequently most of these specimens are in the museum at Humbolt University, Berlin (ZMHB). He did not illustrate any of his phasmids and the text is difficult to read because it is printed in a gothic font (see fig. 5).

References

- Auza, N.T.** (1996) "Germán Burmeister y la Sociedad Paleontológica, 1866-1868", *Investigaciones y ensayos*, **46**: 137-155.
- Burmeister, H. (1838)** *Handbuch der Entomologie*, Volume 2. Berlin.
- New York Evening Post (1853)** The Black Man. The comparative anatomy and psychology of the African Nigro.
- Zompro, O. (2005)** *Haplopus* Burmeister, 1838, replacement name for *Aplopus* Gray, 1835 (Phasmatoidea). *Phasmid Studies*, 13(1&2): 30.